

Data Sheet | Item Number: 221-412

Splicing connector with levers; for all conductor types; max. 4 mm<sup>2</sup>; 2-conductor; transparent housing; Surrounding air temperature: max 85°C (T85); 4,00 mm<sup>2</sup>; transparent

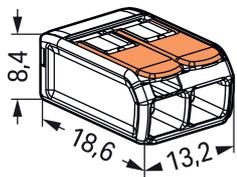


<https://www.wago.com/221-412>



Color:  transparent





Dimensions in mm

**Splicing connector with levers, 221 Series, lever**

Our splicing connector with levers (item number 221-412) ensures effortless electrical installations. From wiring intercom systems to installing electrical ovens, connecting different conductor types is quick and hassle-free with WAGO's compact 221 Series splicing connector, which allows you to quickly and safely connect different types of conductors. This splicing connector has a rated voltage of 450 V and can handle currents up to 32 A, making it suitable for high-load applications. Ensure that the strip lengths are 11 mm when connecting conductors to splicing connector with levers. This product incorporates conductor terminals and utilizes CAGE CLAMP®. Our CAGE CLAMP® connection offers a proven and maintenance-free way to connect all types of conductors. You do not need to prepare the conductor in any way, such as crimping ferrules. The dimensions are 13.1 x 8.3 x 18.6 mm (width x height x depth). Depending on the type of conductor, splicing connector with levers is suitable for conductor cross sections ranging from 0.2 mm<sup>2</sup> to 4 mm<sup>2</sup>.

WAGO's 221 Series Splicing Connector with levers impresses with its innovative design for different conductor cross-sections. That's why WAGO's lever-equipped splicing connector holds a unique trademark within electrical interconnection technology. The flat levers, which fit seamlessly into the 221's base, act like a cast when closed and can be positioned neatly in any housing without disturbing edges. Due to the wide design of each lever, they can all be operated perfectly without tools for convenient conductor terminations. The transparent housing displays robust technology and enables immediate visual inspection for the correct contact of solid, stranded and fine-stranded conductors. Resembling piano keys, the levers' design perfectly combines the functional and aesthetic connection technology "Made by WAGO." This product is designed for specific Ex applications (please refer to the product datasheet).

## Notes

General safety instructions

**NOTICE: Observe installation and safety instructions!**

- **Only to be used by electricians!**
- Do not work under voltage/load!
- Use only for proper use!
- Observe national regulations/standards/guidelines!
- Observe technical specifications for the products!
- Observe the number of permissible potentials!
- Do not use damaged/dirty components!
- Observe conductor types, cross-sections and strip lengths!
- Insert conductor until it hits the product's backstop!
- Use original accessories!

**To be sold only with installation instructions!**

Safety Information

in grounded power lines

## Electrical data

Ratings per	EN 60664		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	-	-	450 V
Rated surge voltage	-	-	4 kV
Rated current	-	-	32 A

Approvals per	UL 486C		
Use group	B	C	D
Rated voltage	-	600 V	-
Rated current	-	20 A	-

## Connection data

Clamping units	2
Total number of potentials	1

Connection 1	
Connection technology	CAGE CLAMP®
Actuation type	Lever
Connectable conductor materials	Copper
Nominal cross-section	4 mm <sup>2</sup> / 12 AWG
Solid conductor	0.2 ... 4 mm <sup>2</sup> / 24 ... 12 AWG
Stranded conductor	0.2 ... 4 mm <sup>2</sup> / 24 ... 12 AWG
Fine-stranded conductor	0.14 ... 4 mm <sup>2</sup> / 24 ... 12 AWG
Strip length	11 mm / 0.43 inches
Wiring direction	Side-entry wiring

## Physical data

Width	13.1 mm / 0.516 inches
Height	8.3 mm / 0.327 inches
Depth	18.6 mm / 0.732 inches

## Material data

Note (material data)	<a href="#">Information on material specifications can be found here</a>
Color	transparent
Material group	Illa
Insulation material (main housing)	Polycarbonate (PC)
Flammability class per UL94	V2
Fire load	0.049 MJ
Actuator color	orange
Weight	1.7 g

### Environmental requirements

Ambient temperature (operation)	+85 °C
Continuous operating temperature	105 °C
Temperature marking per EN 60998	T85

### Commercial data

Product Group	7 (Push Wire Conn.)
PU (SPU)	1000 (100) pcs
Packaging type	Box
Country of origin	DE
GTIN	4050821808435
Customs tariff number	85369010000

### Product classification

UNSPSC	39121409
eCl@ss 10.0	27-14-11-04
eCl@ss 9.0	27-14-11-04
ETIM 9.0	EC000446
ETIM 8.0	EC000446
ECCN	NO US CLASSIFICATION

### Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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### Approvals / Certificates

#### General approvals



Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60998	NTR NL-7990
cULus_Listed_667F Underwriters Laboratories Inc.	UL 486C	E69654
UL_Listed_64KA UL International Germany GmbH	UL 467	E201573

#### Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

### Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	18-HG1755093-PDA
DNV GL Det Norske Veritas, Ger- manischer Lloyd	EN 60998	TAE000015T
LR Lloyds Register	EN 60998	LR22207029TA

## Downloads

### Environmental Product Compliance

Compliance Search			
Environmental Product Compliance 221-412			↓

## Documentation

Bid Text			
221-412	19.02.2019	xml 3.43 KB	↓
221-412	23.01.2019	docx 15.26 KB	↓
ausschreiben.de 221-412			↓

## CAD/CAE-Data

CAD data	
2D/3D Models 221-412	↓

CAE data	
EPLAN Data Portal 221-412	↓
ZUKEN Portal 221-412	↓

## 1 Compatible Products

### 1.1 Optional Accessories

#### 1.1.1 General accessories

##### 1.1.1.1 Empty housings



**Item No.: 207-4301**  
 Junction box; Branch; for multicore cables; 221 Series; max. 4 mm<sup>2</sup> connectors; without splicing connectors; white

##### 1.1.1.2 Moisture protection



**Item No.: 207-1331**  
 Gelbox; Branch; for cables; with gel; 221, 2x73 Series; max. 4 mm<sup>2</sup> connectors; without splicing connectors; Size 1; gray



**Item No.: 207-1332**  
 Gelbox; Branch; for cables; with gel; 221, 2x73 Series; max. 4 mm<sup>2</sup> connectors; without splicing connectors; Size 2; gray



**Item No.: 207-1333**  
 Gelbox; Branch; for cables; with gel; 221, 2x73 Series; max. 4 mm<sup>2</sup> connectors; without splicing connectors; Size 3; gray

### 1.1.2 Jumper

#### 1.1.2.1 Jumper



**Item No.: 221-941/000-006**

Jumper; for conductor entry; 2-way; insulated; blue

**Item No.: 221-942/000-006**

Jumper; for conductor entry; 2-way; insulated; blue

**Item No.: 221-941**

Jumper; for conductor entry; 2-way; insulated; dark gray

**Item No.: 221-942**

Jumper; for conductor entry; 2-way; insulated; dark gray

### 1.1.3 Mounting adapter

#### 1.1.3.1 Mounting accessories



**Item No.: 221-500/000-006**

Mounting carrier; 221 Series - 4 mm<sup>2</sup>; for DIN-35 rail mounting/screw mounting; blue

**Item No.: 221-500/000-053**

Mounting carrier; 221 Series - 4 mm<sup>2</sup>; for DIN-35 rail mounting/screw mounting; dark gray-yellow

**Item No.: 221-500**

Mounting carrier; 221 Series - 4 mm<sup>2</sup>; for DIN-35 rail mounting/screw mounting; orange

**Item No.: 221-502/000-004**

Mounting carrier; for 2-conductor terminal blocks; 221 Series - 4 mm<sup>2</sup>; for screw mounting; black



**Item No.: 221-502**

Mounting carrier; for 2-conductor terminal blocks; 221 Series - 4 mm<sup>2</sup>; for screw mounting; white

**Item No.: 221-512/000-004**

Mounting carrier; for 2-conductor terminal blocks; 221 Series - 4 mm<sup>2</sup>; with snap-in mounting foot for horizontal mounting; black

**Item No.: 221-512**

Mounting carrier; for 2-conductor terminal blocks; 221 Series - 4 mm<sup>2</sup>; with snap-in mounting foot for horizontal mounting; white

**Item No.: 221-522/000-004**

Mounting carrier; for 2-conductor terminal blocks; 221 Series - 4 mm<sup>2</sup>; with snap-in mounting foot for vertical mounting; black



**Item No.: 221-522**

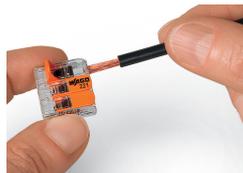
Mounting carrier; for 2-conductor terminal blocks; 221 Series - 4 mm<sup>2</sup>; with snap-in mounting foot for vertical mounting; white

### Installation Notes

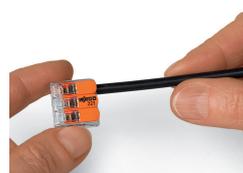
#### Conductor termination



Strip conductor to 11 mm (0.43 inch).



Pull up an orange lever to open the clamping unit.



Then insert the conductor and push the lever back down, flush with the connector housing.



**Compact, lever-operated splicing connectors:**

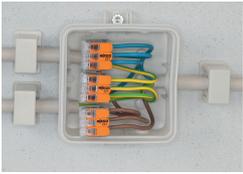
Tool-free connection of fine-stranded conductors from 0.14 ... 4 mm<sup>2</sup>, as well as solid or stranded conductors from 0.2 ... 4 mm<sup>2</sup> (24 ... 12 AWG).

**Safety:**

The lever's specially designed rest position reliably prevents accidental unclamping of a connected conductor.

Application safety, for any type of conductor (solid, stranded, fine-stranded), is confirmed by approvals like ENEC or UL.

Application



Wiring fine-stranded conductors in junction boxes.



Custom low-voltage lighting system



Lighting distribution in a ceiling canopy



Pendant light connection in a suspended ceiling